Listing of Claims

1. (Previously Presented) An optical detector for receiving an optical signal transmitted via an optical fiber cable, the detector comprising:

an array of photo-sensors for location in the path of an optical signal, where the optical signal is transmitted via an optical fiber cable; and

a controller for detecting which of the photo-sensors receives the optical signal, and deriving a received signal from any output of any of said photo-sensors that detects the optical signal, and discounting any signal from photo-sensors that do not receive the optical signal, for automatically aligning the optical fiber to at least one of the photo-sensors.

2. (Original) An optical detector as claimed in claim 1, wherein the controller comprises: DC extraction circuitry for extracting a DC component from the output of each photo-sensor in the array; AC extraction circuitry for extracting an AC component from the output of each photo-sensor in the array; and, multiplier circuitry coupled to the DC extraction circuitry and to the AC extraction circuitry for generating a separate multiplier output based on the AC component and the DC component of the output of each photo-sensor in the array.

3. (Original) An optical detector as claimed in claim 2, wherein each multiplier output is based on the product of the AC component and the DC component of the output of the corresponding photo-sensor.

4. (Original) An optical detector as claimed in claim 2, wherein the controller comprises summation circuitry coupled to the multiplier circuitry for combining the multiplier outputs to generate the received signal.

5. (Original) An optical detector as claimed in claim 4, wherein the DC extraction circuitry comprises a plurality of DC extraction circuits each corresponding to a different one of the photo-sensors and the AC extraction circuitry comprises a plurality of AC extraction circuits each corresponding to a different one of the photo-sensors.

6. (Original) An optical detector as claimed in claim 5, wherein each DC extraction circuit comprising a DC current sensor coupled to the corresponding photo-sensor.

7. (Original) An optical detector as claimed in claim 5, wherein each AC extraction circuit comprises a transimpedance amplifier coupled to the corresponding photo-sensor.

8. (Original) An optical detector as claimed claim 2, wherein the multiplier circuitry comprising a plurality of multiplier circuits each corresponding to a different one of the photo-sensors.

9. (Original) An optical detector as claimed in claim 2, wherein the DC extraction circuitry comprises circuitry for extracting the DC component based on the AC signal strength of the output of each photo-sensor in the array.

10. (Original) An optical detector as claimed in claim 2, wherein the multiplier circuitry comprises a switch.

11. (Original) An optical detector as claimed in claim 10, wherein the switch has a hysteresis.

12. (Previously Presented) An optical detector as claimed in claim 2, wherein each photo-sensor in the array comprises a photo-diode, the photo-diode having an anode and a cathode.

13. (Original) An optical detector as claimed in claim 2, wherein the array of photo-sensors comprises a two dimensional array of photo-sensors.

14. (Previously Presented) An optical communication system having at least one optical fibre and an optical detector facing an end of the optical fiber, wherein said optical detector comprising:

an array of photo-sensors for location in the path of the optical signal; and

a controller for detecting which of the photo-sensors receives the optical signal, and deriving a received signal from any output of any of said photo-sensors that detects

the optical signal, wherein the controller comprises DC extraction circuitry for extracting a DC component from the output of each photo-sensor in the array, AC extraction circuitry for extracting an AC component from the output of each photo-sensor in the array, and multiplier circuitry coupled to both the DC and AC extraction circuitry for generating a separate multiplier output based on the AC component and the DC component of the output of each photo-sensor in the array.

15. (Previously Presented) A method for receiving an optical signal transmitting via an optical fiber cable, comprising the steps of:

locating an array of photo-sensors in the path of an optical signal, where the optical signal is transmitted via an optical fiber cable;

detecting which of the photo-sensors receives the optical signal;

deriving a received signal from any output of any of said photo-sensors that detects the optical signal; and,

discounting any signal from photo-sensors that do not receive the optical signal, for automatically aligning the optical fiber to at least one of the photo-sensors.

16. (Original) A method as claimed in claim 15, wherein the step of detecting further comprising the steps of: extracting a DC component from the output of each photo-sensor in the array; extracting an AC component from the output of each photo-sensor in the array; and, generating a separate multiplier output based on the AC component and the DC component of the output of each photo-sensor in the array.

17. (Original) A method as claimed in claim 16, further comprising the step of basing each multiplier output on the product of the AC component and the DC component of the output of the corresponding photo-sensor.

18. (Original) A method as claimed in claim 16, further comprising the step of combining the multiplier outputs to generate the received signal.

19. (Previously Presented) An optical detector as claimed in claim 12, wherein the AC extraction circuitry is connected to the anode of the photo-diode.

20. (Previously Presented) An optical detector as claimed in claim 12, wherein the AC extraction circuitry is connected to the cathode of the photo-diode.

21. (Previously Presented) An optical detector as claimed in claim 12, wherein the DC extraction circuitry is connected to the anode of the photo-diode.

22. (Previously Presented) An optical detector as claimed in claim 12, wherein the DC extraction circuitry is connected to the cathode of the photo-diode.